### **SUMMARY**

The Tour and School Education Biosolids Gardens and greenhouse space is a practical, hands-on education tool for teaching South Plant visitors about resource recovery and recycling the nutrient values in Biosolids.

The treatment plant tour can be challenging for many visitors – adults and students alike - due to the quantity of information and the intensity of the environment (smells, sounds, etc.). The garden proved to be an effective follow-up and closure to the tour, providing a handson element connecting the visitors to the idea of recycling resources. All visitors worked with Groco and Groco plant mix and many ate produce grown in the gardens (many seeing for the first time how food grows!).

## A different way of learning:

Garden projects required students to work together, share resources, problem solve and implement and complete a project. It was a lighter way to end the day; less intensive thinking and discussion and more physical work and active learning.

## South Plant 'a good neighbor':

The garden allowed the treatment plant to be an enjoyable experience; a place where people could see that others from the community had visited and worked. It is a place where individuals could connect to the 'bigger picture' and feel accomplishment in their efforts.



Moorlands Elementary harvesting remaining tomatoes, squashes, eggplants. Clearing beds for overwintering.



Decatur High School planting seeds for overwintering: broccoli, chard, spinach.



Garlic and irises beginning to grow in winter garden beds.

The garden is an odor-free, aesthetically appealing environment - proving that treatment plants can be enjoyable places, not the equivalent of an out-house experience that most envision prior to visiting. Just as staff have to 'push' groups to be open minded and try to see the 'coolness' of the treatment plants upon arrival, staff often had to 'push' the groups out of the gardens due to timing and transportation logistics by the end of the day. It was not uncommon for groups with a flexible time schedule to stay an hour later than intended.

### Points of interest

- With minimal outreach effort scheduling was frequent enough to maintain movement and growth in both greenhouse and garden beds (a minimum of one group every 2-3 weeks was required).
- Enough food was grown to share with Renton Food Bank,
   Operations staff, and the students who participated.
- Veggie starts were used on site, donated to Alleycat Acres Beacon Hill site and sent home with students.
- The large pile of Groco by the garden parking lot was the single most effective teaching resource: all students and tour visitors, even if they weren't participating in the garden project, would pass by the pile while touring and be



Somali-bantu farming cooperative transplanting the overwintered greenhouse starts.



Spring tomatoes, peppers, eggplants planted by Somali-Bantu farming cooperative.



Tahoma High Schools students transplanting garlic, planting swiss chard, peas and broccoli.

encouraged to 'touch and smell' by tour guide staff. Most couldn't tell the difference between mulch/dirt and Groco. Many students that participated in the garden took Groco samples home.

 Approximately 320 youth and adults worked in the education gardens on 15 different days from September through June. (See details and photos below and at right)

This was possible with support from South Plant staff Mark Sakagami (site prep), Tammy Himes (consistent watering for school gardens, overall site organization, clean-up, beautification) and donations of Groco Plant Mix from Sawdust Supply (approx. 2 bags/month for approx 6 months/school year)



Tulips ready for harvest (by Tahoma H.S.).



Global Connections students harvesting swiss chard for the food bank.

### **FALL**

#### September

- Moorlands Elementary (Kirkland);
  2 5<sup>th</sup> grade classes (60 people).
  Harvested and cleared the summer 2009 demonstration beds.
- Renton Cub Scout pack; 25 youth and parents. Planted tulips and irises, then mulched beds with straw.

#### October

 Decatur High School (Federal Way); 20 students. Planted seed starts for overwintering: broccoli, spinach, swiss chard. Separated garlic cloves to prepare for planting.



Global Connections students planting squashes and tomatoes in the toilet and sink for a display showing that everything is recycled.

 King County WTD education staff planted garlic and began weekly watering of greenhouse starts.

### WINTER

November-January

 KC WTD education staff continued weekly watering of vegetable starts; watered geraniums as requested by the Biosolids Group.

#### February

 Vegetable starts transplanted into 4" pots.

### **SPRING**

March

- UW/Somali-Bantu farming cooperative (Seattle/Auburn); 10 immigrant farmers and UW farm marketing student. Planted spring starts in greenhouse: peppers, tomatoes, eggplants, herbs.
   Visited on two separate days, one to work in the garden, one for a tour of the plant and garden work.
- Transplanted irises were given away at South Plant community tour – 10 participants.

#### April

- School garden beds set and filled by Mark Sakagami.
- Tahoma High School students (Covington); 2 classes – 40 students. Created and developed a plot plan, leveled the beds and prepared them for planting. Planted broccoli, swiss chard, peas and transplanted garlic starts into the bed; harvested tulips

#### May

• White Center Heights elementary (South Seattle); 40 students.



Kent youth choosing tomato starts to take back for the garden at their housing development.



Kent youth collecting Groco samples for their group to take home.



Late June- All broccoli harvested, peas harvested almost ready to clear and compost. Garlic to be harvested early July. Tomatoes, squashes, carrots, green onions planted. Fall veggies started in greenhouse.

Amended biosolids demonstrations beds with Groco for spring/summer 2010 demonstration project as requested by Biosolids Group. Students planted and took home starts in Groco plant mix.

- Nautilus Elementary (Federal Way); 25 students. Planted starts, took home Groco, and seed starts planted in Groco plant mix.
- BEST alternative high school (Kirkland) 20 students transplanted starts, watered, weeded, spreaded mulch.

#### June

- Global Connections High School (Sea-Tac); 30 students. Harvested swiss chard for Renton-Salvation Army food bank, built trellises for the peas and planted the sink/toilet display.
- Seattle University service learning students learn about Biosolids: tour South Treatment Plant, Tour Tagro facility and plant carrots and lettuce starts in South Plant gardens.
- Remaining chard and broccoli harvested. Extra veggie starts from the greenhouse are donated to Alleycat Acres.
- Kent Youth and Family Services brought three groups from Kent public housing total of 3 days, 50 youth. Harvested peas, planted fall veggie starts, maintained watering, and transplanted summer veggie starts.

In all, 17 groups visited the Treatment Plant Gardens totaling approx. 320 people. All who participated gained awareness of and comfortably with the use of reclaimed water, Groco, and community food





Broccoli, peas and more chard harvested for plant staff or food bank.



Summer starts ready for 'Alleycat acres' beacon hill site.

production. Visitors left more comfortable with the idea that poo can be recycled and food grows in dirt.

### **SUMMER 2010**

Summer programs continue to visit and work in gardens. Details will be added to the 2010-2011 school year report.